Saskatchewan
Highways and
Transportation

1996 Ferry Traffic

Annual Report

Planning and Research
Engineering Services

Annual Report

1996 Ferry Traffic

Department of Highways and Transportation
Planning and Research / Engineering Services

103-00553/

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1.0 Introduction

This annual report summarizes and presents analysis of the traffic that used the provincial ferry system in 1996. Traffic data was collected at all 13 ferry sites on the highway system. Comparisons are made between traffic at the ferry sites and previous years.

This report examines the history of traffic volumes and the types of vehicles using each ferry. Examination of the distribution and composition of ferry traffic gives useful insights into the function of each ferry.

Your attention is drawn to the following points about the report. Differences between the data from ferry to ferry are as important as the data itself. The vehicle type data for some vehicles at many of the sites is too small a sample to support accurate conclusions.

The vehicle type data collected at the Riverhurst ferry in 1996 is not compatible with any other ferry or with other years of data at Riverhurst.

2.0 *Executive Summary*

This report summarizes the traffic data collected at the 13 ferries operated by the Department in 1996. The main sections of the report document and analyse the volume and classification of the traffic carried by the all of the ferries. Some highlights and conclusions of this report are:

1. Traffic volumes on the ferry system are stable at or near the 10 year averages.

2. Vehicle classifications indicate the ferries can be grouped by vehicle type.

3. Traffic data collection at the Riverhurst ferry should be made compatible with the rest of the system.

4. The ferry system carried 247,059 vehicles in 1996.

5. Vehicle traffic carried by the ferry system in 1996 had the following vehicle type distribution.

Cars	39.8%
Pickups	51%
Trucks	7%
Buses	0.19%
Farm tractors	1.2%
Self propelled machinery	0.76%

Note: Vehicle type distributions do not include the Riverhurst ferry

3.0 Background

The Department operated 13 ferries during 1996, 12 on the North and South Saskatchewan Rivers and 1 on Lake Diefenbaker. The ferry system has remained basically unchanged since responsibility for the system was moved to the Department as a result of Rural Developments amalgamation with the Department. This year a major change occurred when the Cumberland Ferry was decommissioned after the new bridge to Cumberland House was opened to traffic. This year there were no major events that effected the whole system like the high river levels of 1993.

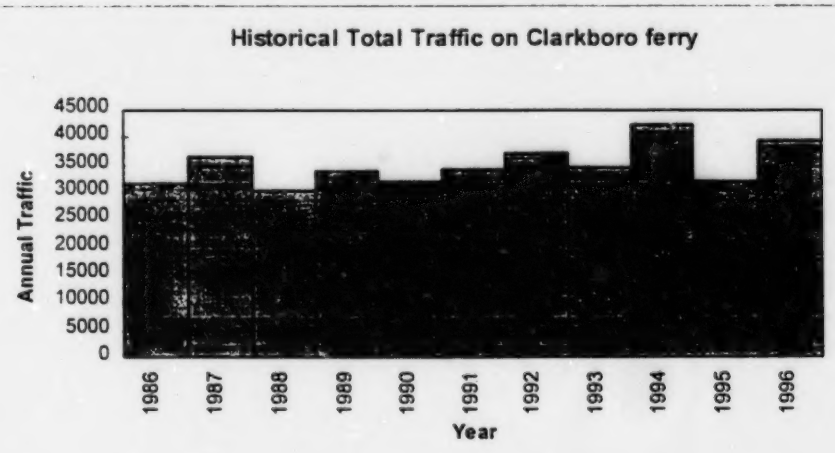
In spring of this year, responsibility for compiling and reporting the traffic data collected by the ferry operators was moved to the Traffic Information System. This annual report documents the traffic that used the ferry system in 1996 and examines changes and trends in the traffic data.

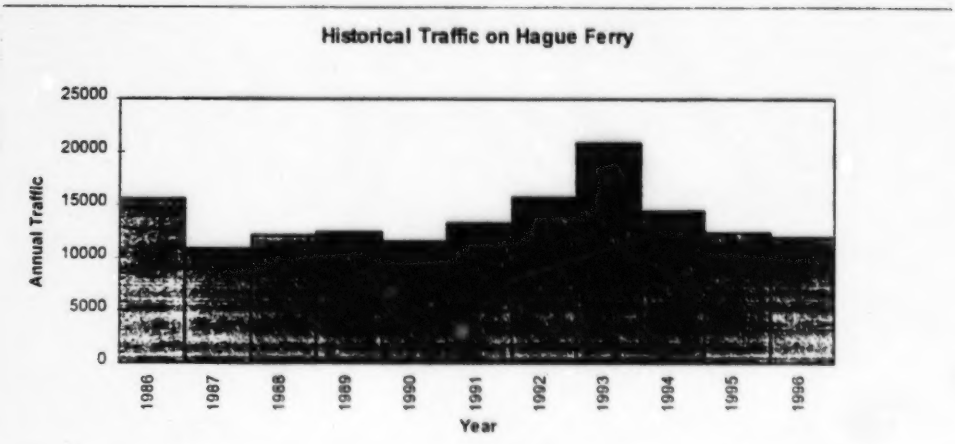
3.1 Traffic Volumes

To facilitate analysis in a systematic manner the ferry traffic data were grouped by geographical location. That grouping system results in 4 groupings, Saskatoon, Prince Albert, Swift Current and North Battleford

1. Saskatoon Area

The Saskatoon area group contains 2 ferries, Clarkboro and Hague. These ferries carry annual traffic in the 35,000 and 12,000 vehicle per year range respectively (see charts below). Both ferries have experienced year to year variations of 10,000 and 5,000 vehicles respectively over the last 10 years. Variations within that range seem for the most part to be normal fluctuations generated by factors like weather and crop rotations. The only possible exception to that pattern was a sharp increase of 9,000 vehicles at the Hague ferry in 1993. The traffic returned to normal levels in subsequent years. To examine the monthly traffic see Appendix I.

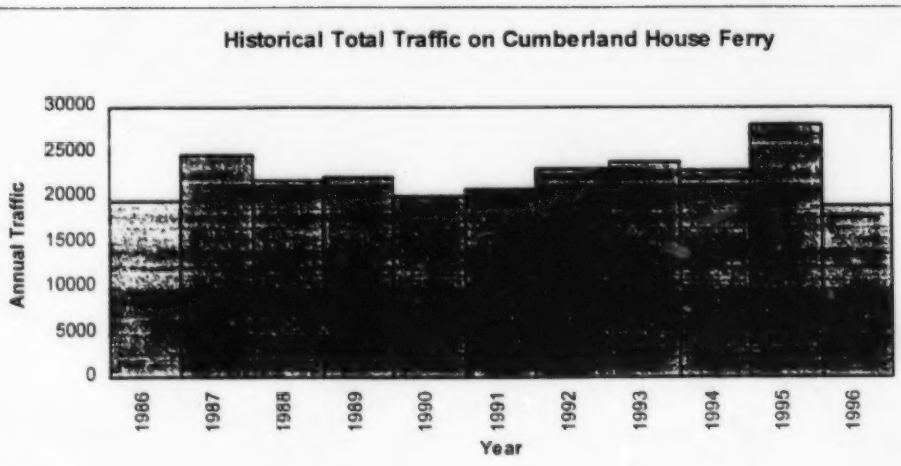


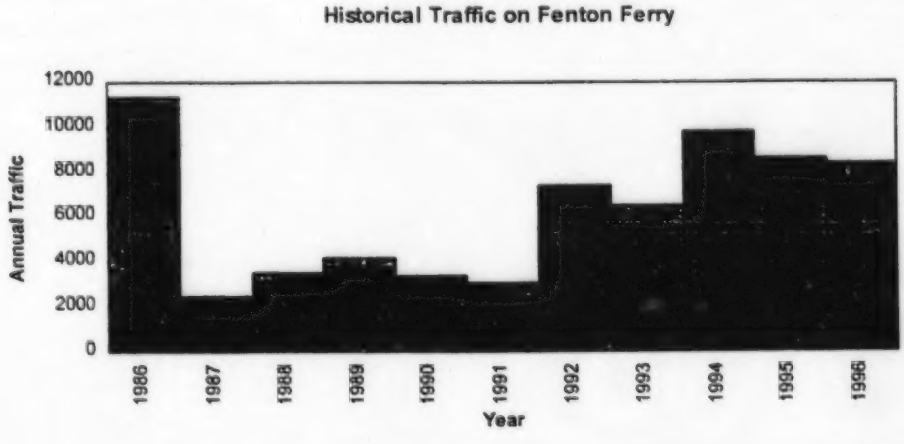


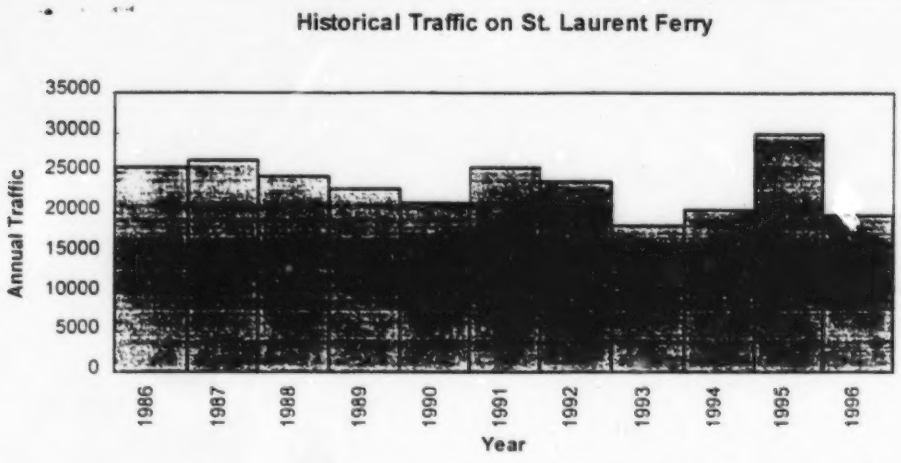
2. Prince Albert Area

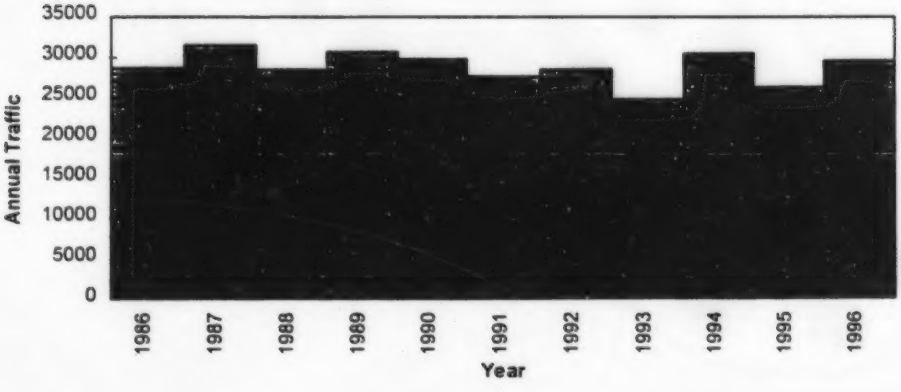
The Prince Albert area group contains 6 ferrys, Cecil, Cumberland, Fenton, St. Laurent, Weldon and Wingard. Cecil, Weldon and Wingard have remained fairly constant over the last 10 years(see charts below). Cecil and Wingard have been experiencing a slight downward trend in annual volumes over the last several years. Fenton had very low volumes for a 5 year period between 1987 and 1991. Volumes at Fenton have risen over the last 5 years and stabilized at about 8000 vehicles per year. St. Laurent has had volumes that fell gently over the last 10 years from 26,000 vehicles per year to the present 20.000. The only exception to that trend was a spike to 30,000 vehicles in 1995. The Cumberland House ferry has carried about 22,000 vehicles per year with minor year to year variations. Given the captive nature of the traffic generated by the community, major variations are likely the result of year to year fluctuations in the operating season length.

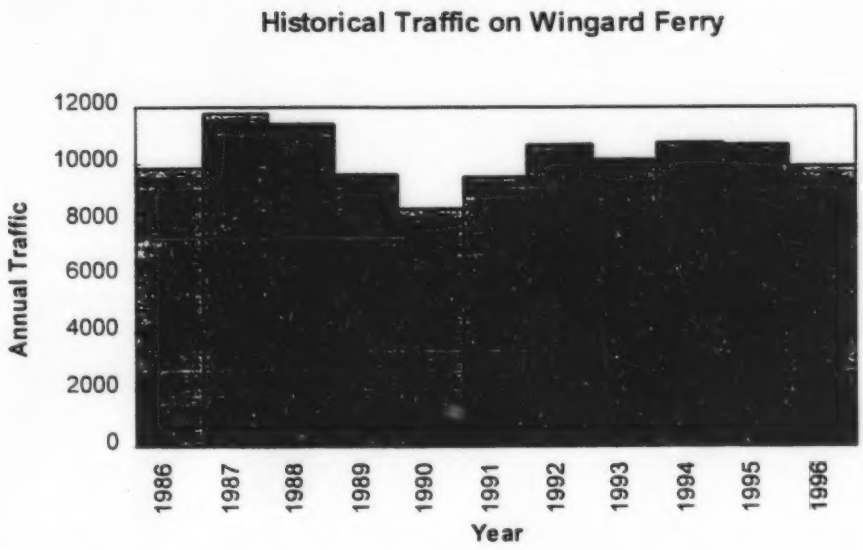
Overall, ferrys in Prince Albert area have stable traffic volumes. Fenton ferry has had the lowest annual average traffic volume in the ferry system over the last 10 years at only 6218 vehicles. Fenton has recovered in the last 3 years to an average of 8893 vehicle per year. To examine the monthly traffic see Appendix I.


Historical Total Traffic on Cumberland House Ferry
Annual Traffic
30000
25000
20000
15000
10000
5000
0
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
Year


Historical Traffic on Fenton Ferry
Annual Traffic
12000
10000
8000
6000
4000
2000
0
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
Year

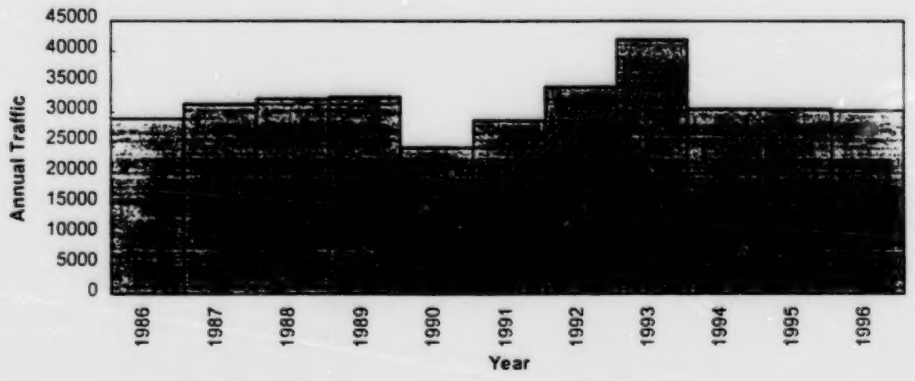

Historical Traffic on St. Laurent Ferry
Annual Traffic
35000
30000
25000
20000
15000
10000
5000
0
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
Year


Historical Traffic on Weldon Ferry
Annual Traffic
35000
30000
25000
20000
15000
10000
5000
0
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
Year


Historical Traffic on Wingard Ferry
Annual Traffic
12000
10000
8000
6000
4000
2000
0
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
Year

3. North Battleford Area

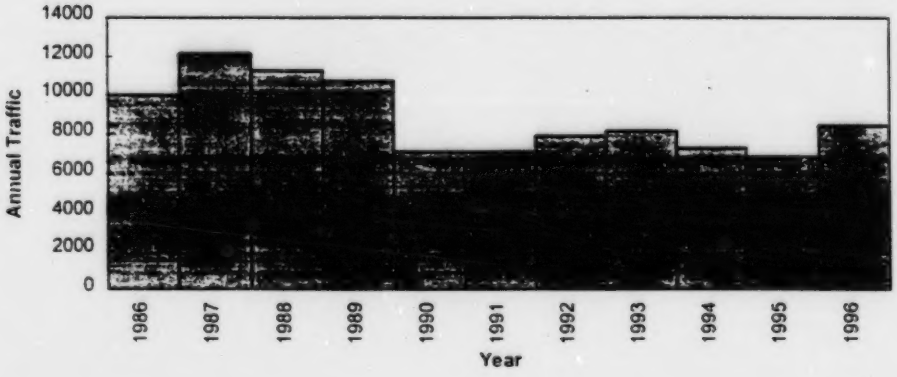
The North Battleford area has only the Payton ferry. Payton has carried an average of 31,391 vehicles per year over the last 10 years (see chart below). For reasons that are not readily apparent the traffic volume at Payton fell sharply to 24,000 vehicles in 1990 and then climbed to 42,000 by 1993. Traffic volumes during the last 3 years have been remarkably stable at 30,500 vehicles per year. To examine the monthly traffic see Appendix I.



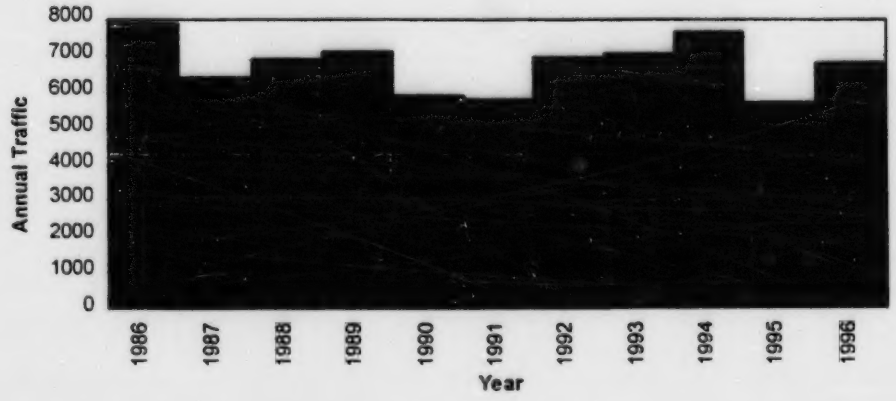
4. Swift Current Area

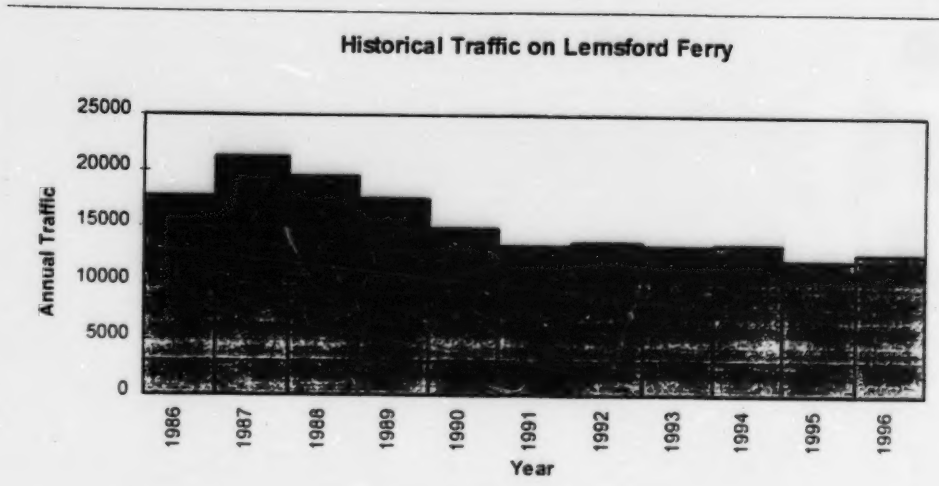
The Swift Current area has 4 ferrys, Estuary, Lancer, Lemsford and Riverhurst. Traffic using the Lancer has been very stable over the last 10 years at about 6700 vehicles per year with a year to year variation of something like 1000 vehicles (see chart below). The Lemsford and Estuary ferries are quite different. Both of these ferries have shown a drop in usage in the last 10 years(see chart below). The drop has stabilized somewhat in the 6 years but both are currently carrying about 1/3 less traffic than 10 years ago. The Riverhurst ferry is the largest and most sophisticated ferry in the province because it carries vehicles 2 kilometres across Lake Diefenbaker. The Riverhurst ferry has had stable traffic volumes in the 40,000 vehicles per year range during the last 10 years. To examine the monthly traffic see Appendix I.

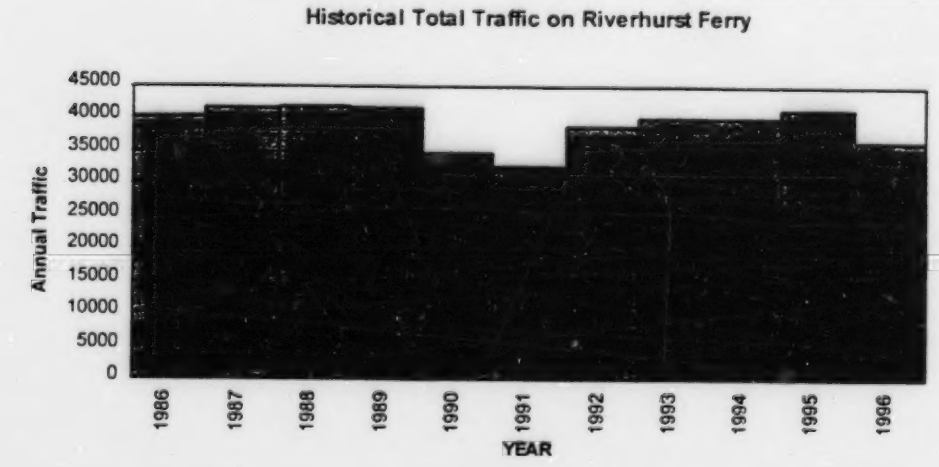
Historical Total Traffic on Estuary Ferry



Historical Traffic on Lancer Ferry







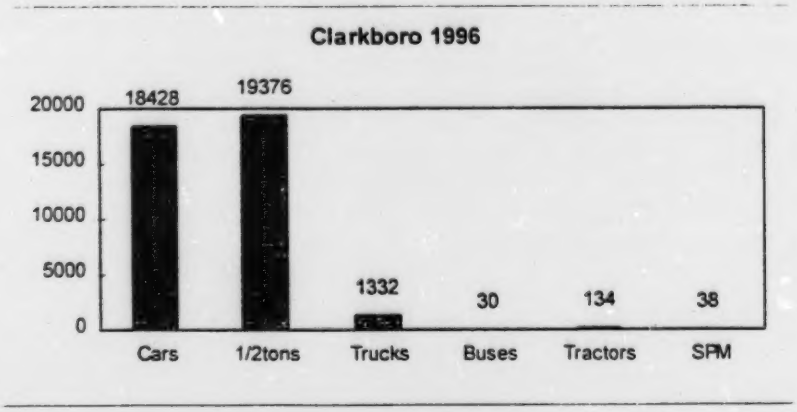
A table and a graphical plot of the historical traffic volumes at all the ferrys in the province can be found in appendix II.

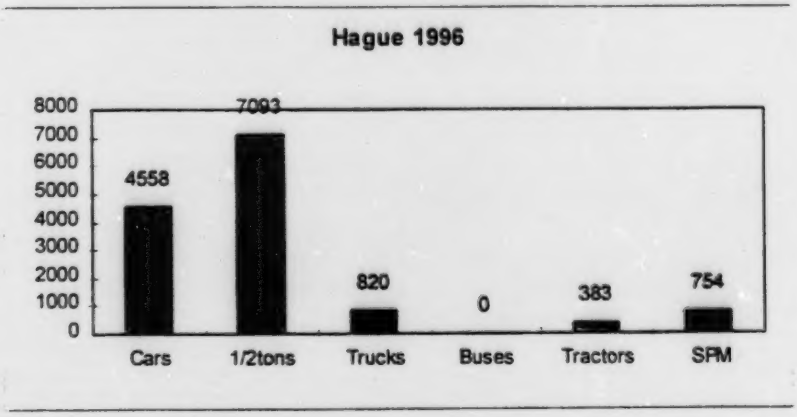
3.2 Vehicle Classifications

Vehicle classifications were analysed using the same geographic grouping structure as the volume analysis.

1.0 Saskatoon Area

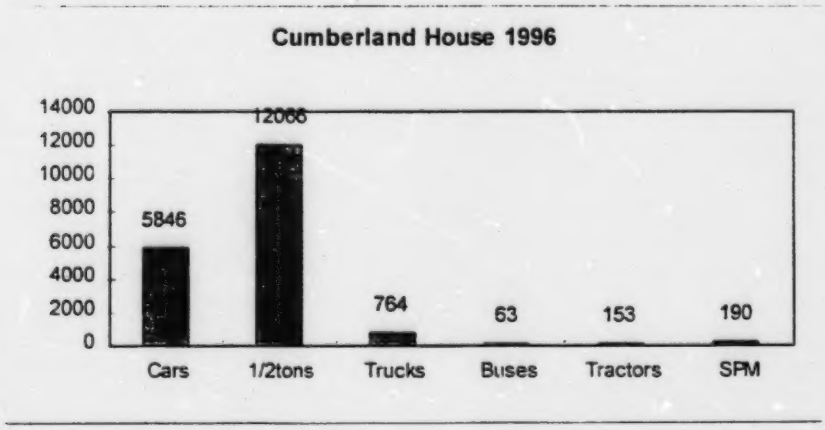
The Saskatoon area ferries don't carry large amounts of commercial traffic (see charts below). That finding is not surprising since there are no larger communities served by these crossings. Comparison of the light vehicle types shows that Clarksboro carries a much higher proportion of cars to pickups than does Hague. The difference is likely attributable to Clarkboros carrying a larger amount of traffic generated by a commuter movement to and from Saskatoon.



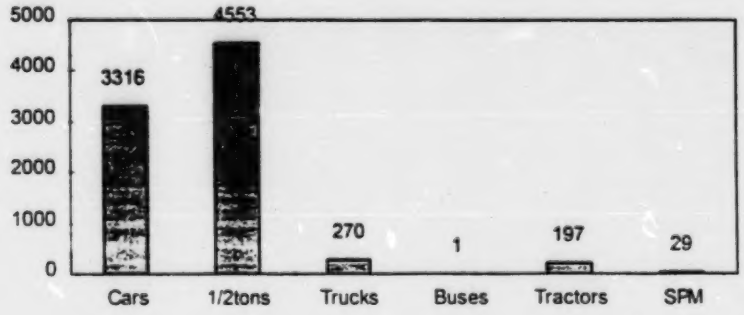


2.0 Prince Albert Area

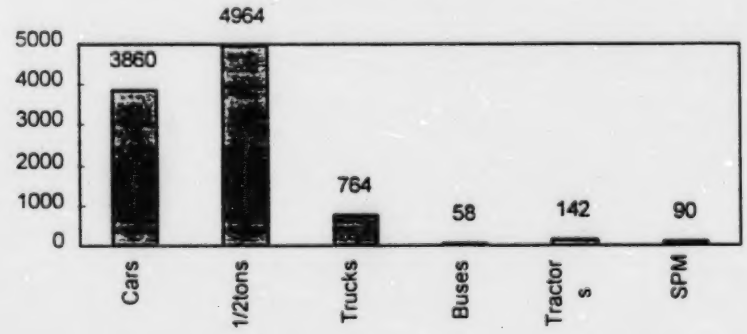
The Prince Albert area ferries can be broken into 2 groups by light vehicle types carried (see charts below). The first group carries mostly rural traffic as indicated by a high proportion of pickup trucks and higher numbers of large trucks. This group includes the Cecil, Cumberland, Fenton and Wingard ferries. They are similar in the sense that none of them lead from a major highway to a large community and that their locations don't connect them to a commuter movement to Prince Albert.
The second group carries a much higher proportion on cars and tend to have a much lower proportion of large trucks. This group includes the St. Laurent and Weldon ferries. Both of these ferries link small bedroom communities to Prince Albert by a direct highway link.



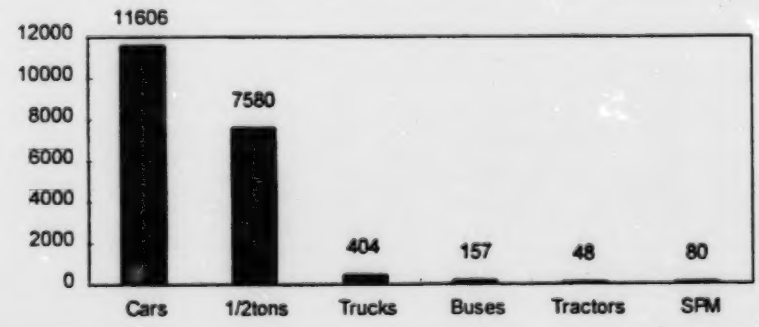
Fenton 1996

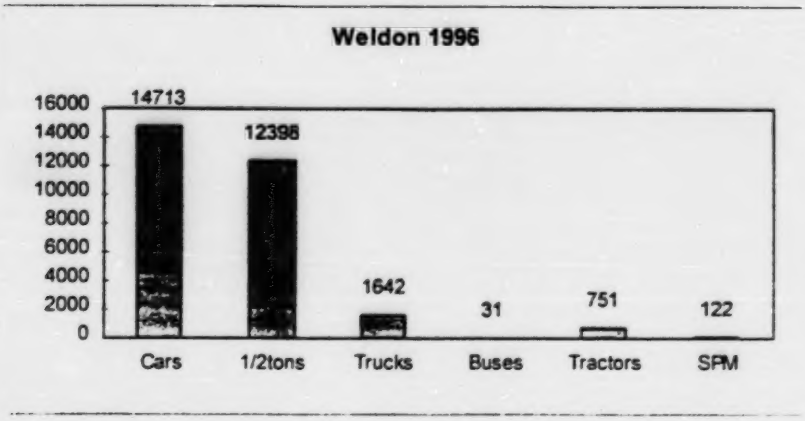


Wingard 1996



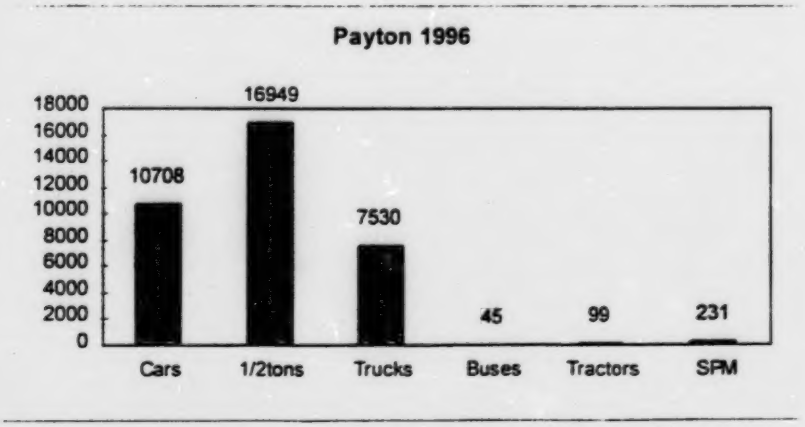
St. Laurent 1996





3.0 North Battleford Area

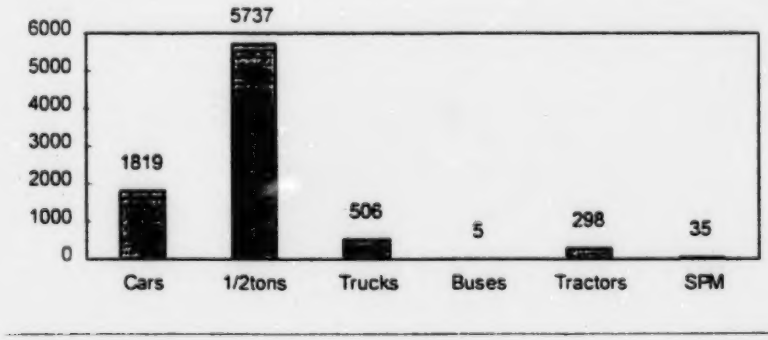
The North Battleford area contains only the Payton ferry. Payton serves a predominately rural population as shown by the high proportion of pickup trucks in the vehicle mix. Payton also serves as a major link to highway No. 16 for freight and agricultural product haul. Fully 20 percent of the traffic using the payton ferry are heavy trucks(see chart below).

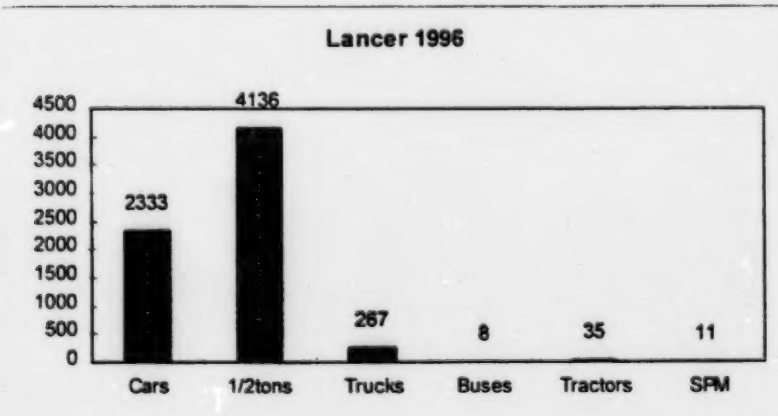


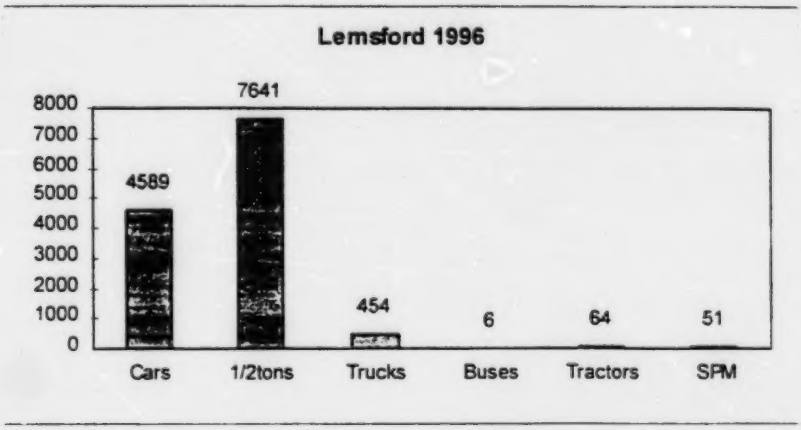
4.0 Swift Current Area

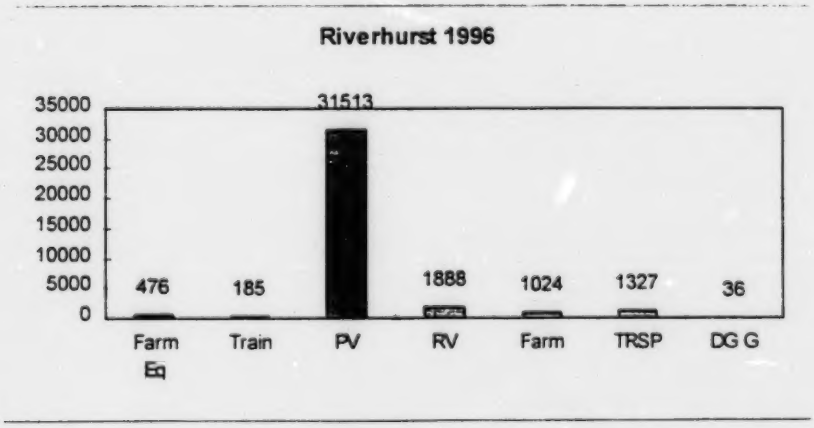
The Swift Current area ferries all serve a predominately rural population as shown by the high proportion of pickup trucks in the vehicle mix. Of the river ferries Estuary carries an unusually high number of farm tractors. That anomoly is likely caused by livestock producers south of the river harvesting feed crops on the north side of the river and hauling it across the river to their farmsteads.

The Riverhurst ferry vehicle mix can not be compared to any other ferry because the traffic data collected in 1996 was different than that collected on the rest of the system. The traffic was recorded by registration class rather than vehicle type. A chart of the registration class distribution for 1996 at Riverhurst can be found in appendix II.









A chart summarizing the vehicle types at all the ferrys in the province can be found in appendix II.

5.0 Conclusions and Recommendations

5.1 Conclusions

1) In 1996 the ferry system was operating at or near the 10 year average traffic levels.

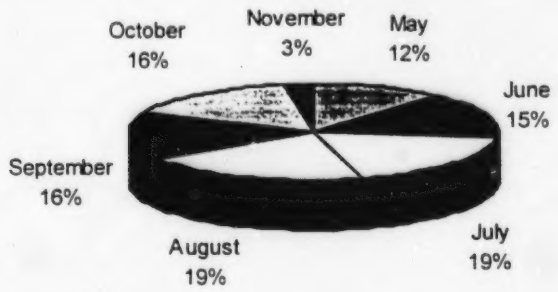
2) The ferry system is still well utilized. Year to year traffic fluctuations at individual ferrys seem to caused by differences in the length of the operational season or local factors external to the highway system.

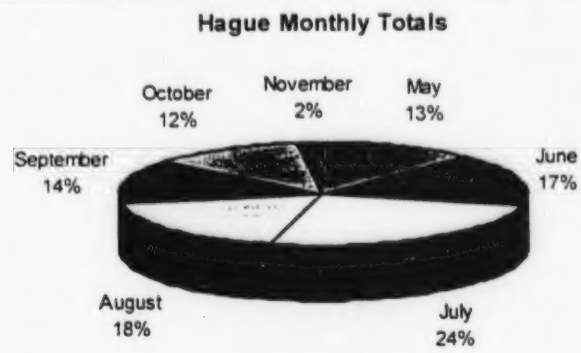
3) The ferries can be broken into 2 groups by light vehicle types. The ferries that serve as urban feeder links carry predominately cars and are part of a local feeder to a city. In the second group pickup trucks predominate the light vehicle traffic. These ferries are not on a highway that is part of a direct link to a city.

5.2 Recommendations

1) Traffic data collection at the Riverhurst ferry be made compatible with the rest of the ferry system.

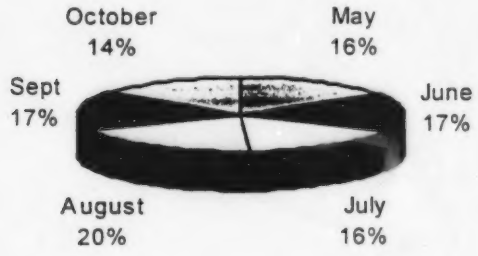
Saskatoon


Clarkboro Monthly Totals
October 16%
November 3%
May 12%
June 15%
September 16%
August 19%
July 19%

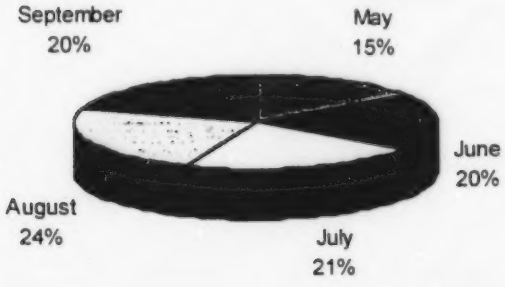

Hague Monthly Totals
October 12%
November 2%
May 13%
September 14%
June 17%
August 18%
July 24%

Prince Albert

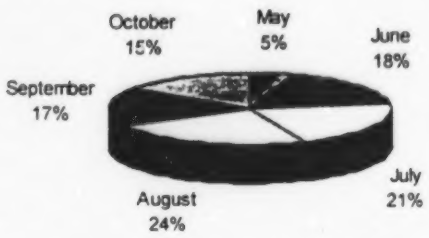
Cecil Monthly Totals 96



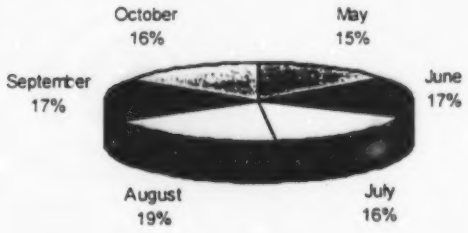
Cumberland House Monthly Totals



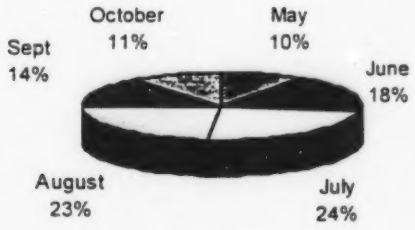
Fenton Monthly Totals



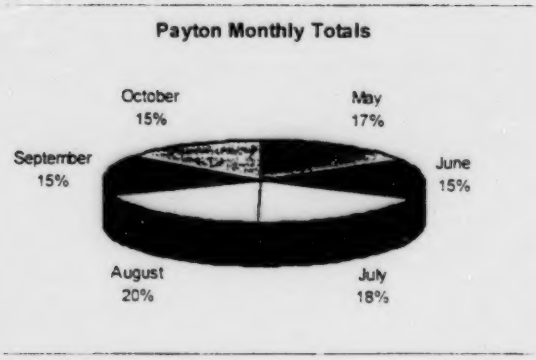
Weldon Monthly Totals



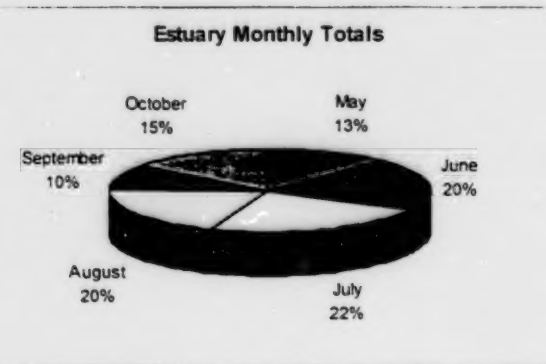
Wingard Monthly Totals



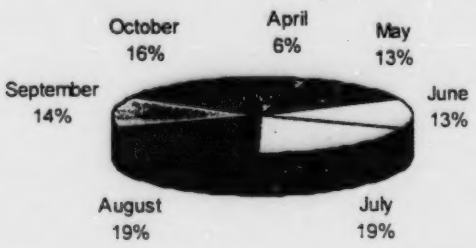
North Battleford



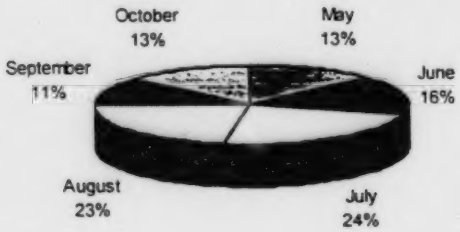
Swift Current



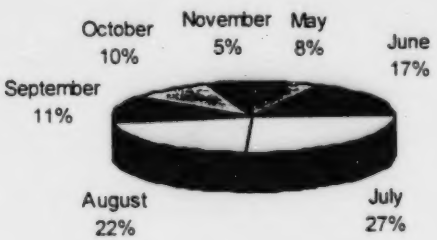
Lancer Monthly Totals

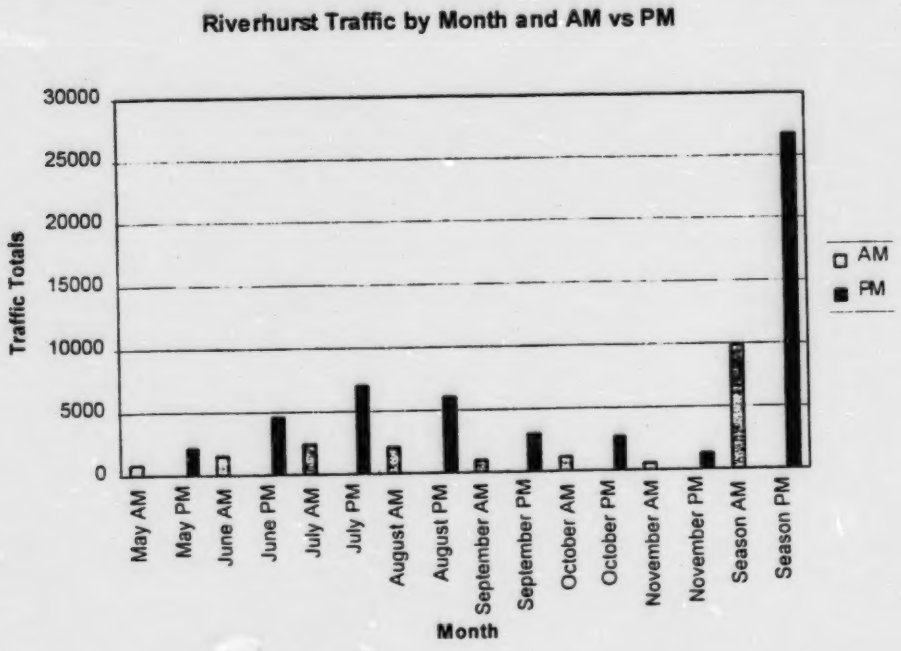


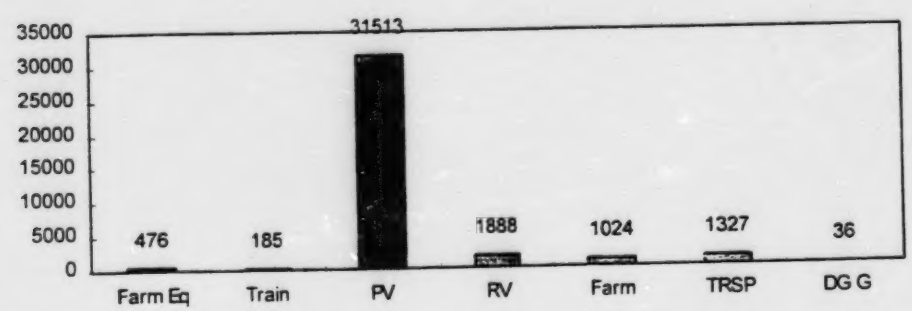
Lemsford Monthly Totals

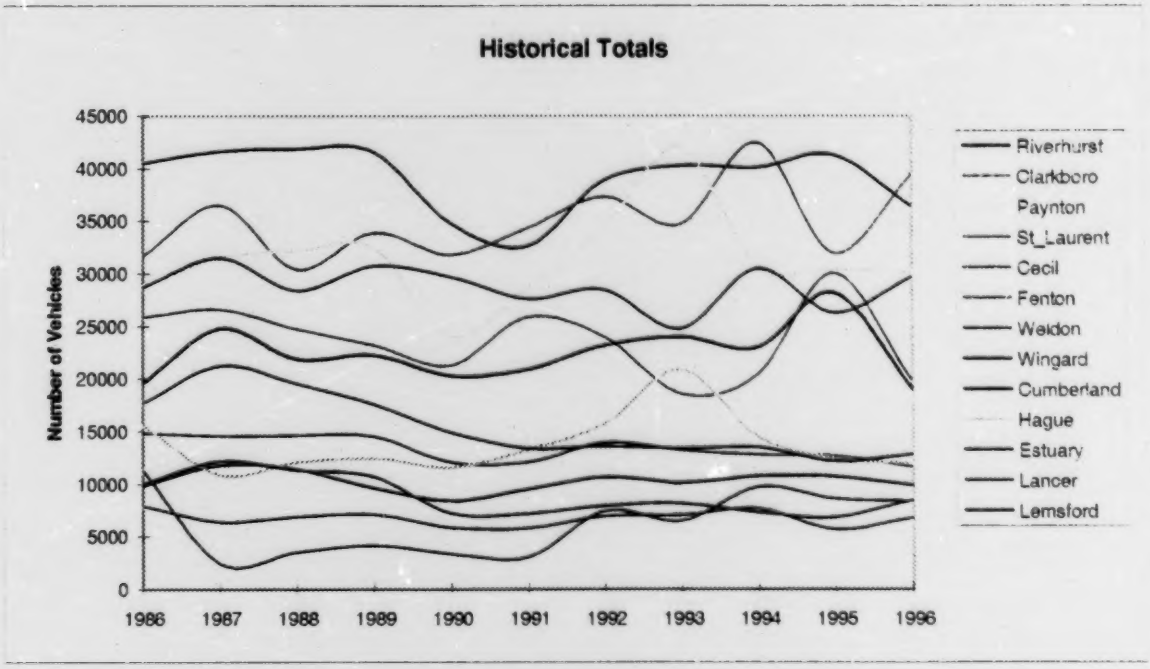


Riverhurst Monthly Totals




Riverhurst Traffic by Month and AM vs PM
Traffic Totals
30000
25000
20000
15000
10000
5000
0
May AM
May PM
June AM
June PM
July AM
July PM
August AM
August PM
September AM
September PM
October AM
October PM
November AM
November PM
Season AM
Season PM
Month
AM
PM


Riverhurst 1996
35000
30000
25000
20000
15000
10000
5000
0
476
185
31513
1888
1024
1327
36
Farm Eq
Train
PV
RV
Farm
TRSP
DG G



NAME	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Average
Riverhurst	40452	41602	41848	41575	34792	32613	38835	40242	40076	41291	36449	39070
Clarkboro	31610	36509	30394	33884	31817	34291	37284	34674	42448	31975	39338	34929
Paynton	28792	31514	32173	32436	24066	28662	34293	42058	30686	30453	30172	31391
St_Laurent	25855	26540	24717	23155	21250	25842	24017	18556	20421	30030	19875	23660
Cecil	14817	14559	14605	14505	12058	12054	13887	13210	12752	12678	11603	13339
Fenton	11313	2449	3500	4147	3319	3079	7394	6517	9730	8582	8366	6218
Weldon	28702	31453	28377	30702	29681	27586	28460	24754	30465	26268	29657	28737
Wingard	9836	11786	11404	9604	8395	9511	10628	10115	10719	10687	9878	10233
Cumberland	19608	24787	21893	22260	20273	20891	23192	24000	23041	28198	19082	22475
Hague	15619	10845	12077	12417	11578	13258	15700	20883	14442	12425	11961	13746
Estuary	10016	12161	11292	10718	7175	7172	7900	8153	7278	6844	8463	8834
Lancer	7885	6389	6871	7094	5862	5779	6928	7047	7649	5673	6789	6724
Lemsford	17672	21222	19545	17589	14873	13368	13588	13381	13471	12170	12805	15426